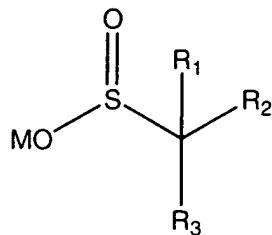


VERSION WITH MARKINGS TO SHOW CHANGES MADE

The claims have been amended as follows:

1. (Twice Amended) In a vinyl acetate based polymer emulsion formed by the emulsion polymerization of vinyl acetate and N-methyloacrylamide, optionally other monomers, in the presence of a stabilizing system and a redox catalyst system comprised of an oxidizing agent and a reducing agent, the improvement for reducing formaldehyde emissions in the resulting vinyl acetate based polymer emulsion, which comprises:

forming said vinyl acetate based polymer emulsion utilizing as the reducing component of the redox catalyst system a reducing agent of the formula:



where M is a hydrogen atom, an ammonium atom or a monovalent metal ion, R₁ is OH or NR₄R₅ wherein R₄ and R₅ each are H or C₁-C₆ alkyl; R₂ is H or an alkyl, alkenyl, cycloalkyl or aryl and R₃ is CO₂M.

2. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 1 in which the vinyl acetate based polymer comprises ethylene in an amount of from about 10 to 40% by weight of the polymer.

3. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 2 wherein the N-methylolacrylamide is present in an amount of from about 0.5 to 10% by weight of the polymer.

4. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 3 wherein the reducing agent represented by the formula is selected from the group consisting of: 2-hydroxyphenyl hydroxymethyl sulfinic acid-sodium salt; 4-methoxyphenyl hydroxymethyl sulfinic acid-sodium salt; 2-hydroxy-2-sulfinato acetic acid-disodium salt; 2-hydroxy-2-sulfinato acetic acid-zinc salt; 2-hydroxy-2-sulfinato propionic acid-disodium salt; ethyl 2-hydroxy-2-sulfinato propionate-sodium salt.

5. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 4 wherein the vinyl acetate based polymer emulsion is formed using a redox catalytic system of hydrophobic hydroperoxide and the glycolic acid adduct of sodium sulfite.

6. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 3 wherein M is sodium or zinc.

7. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 3 wherein R₁ is OH.